

ULTRA

Positions and Polarities Beyond Crisis

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Image: Michaelmore, Roeger & Russell, *Chester House*, Belair 1966, State Library of South Australia BRG 346/28/6/2.

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A Hundred Local Cities and the Crisis of Commuting: How Nodal Suburbs Shaped the Most Radical Change in Melbourne's Suburban Development, 1859 -1980

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Abstract

The major crisis in the evolving urban form of Australian cities came in a single development: when work patterns and separation from the central activities' districts outran walking distance. The key enabler was commuter transport, first with horse-drawn omnibuses and then with trams and suburban trains. At this point the average area of suburban lots exploded, the 'worker' cottage' was eclipsed as the most numerous housing type, house sizes increased, house footprints became almost sprawling in celebration, and suburban shopping centres began to break from the long lines of shops and municipal buildings lining major road arteries to the central cities.

This centripetal tendency had all manner of typological and developmental results, and Melbourne is taken as an initial example in a wider Australian study. Houses entered a newly diagonal composition and connection to their streets; new neighbourhood relations focussed on garden displays and broader individual expression in specific house designs. An equally major change, though, came as railways and a series of new tram routes dragged newer shopping and municipal precincts away from simply lining arteries to the city, setting up nodal suburban centres with new, 'hub' plan forms that either cut across arterial roads at right angles or clear obliques, or developed away from existing arteries altogether. Each node 'commanded' between three to five surrounding suburbs. Suburban nodes became both service referents and impetus-centres or sources for suburban growth, and, significantly, new centres of regional identification and loyalty.

With Federation comes a waning of central city significance, observed long ago in Graeme Davison's *Marvellous Melbourne*, a suburbanism generated by and inflecting on *nodes*. This challenges the long-accepted picture of Australian cities having a small, towering central business district and encircled by a huge, undifferentiated suburban sprawl. This study also looks at what a nodal suburb generally comprises- its critical mass.

Introduction

Australian suburbs, if Melbourne is an example, are typically perceived as undifferentiated sprawl- a bin for living lacking inherent political or social agency but present in consistent bulk and apparently repetitive imagery. Since the later nineteenth century though, and commuting, the pattern has changed to development around suburban nodes, spaced regularly from two to ten-kilometre intervals, to 18-20 km in more recent outer suburban regions. Nodal suburbs have gained a specific architectural character, and quite specific social and service patterning, in worship, sport and geographical identification.

In Australia, certain suburbs distinctly recreate urban rituals, imagery and ceremony in high fidelity. Oddly, this conscious attempt is prompted by dissonance – that which is set in binary opposition to the city. In Australia the city and the suburb are often perceived as having developed visually independently of each other, despite their obvious co-dependencies. Given the long-growing dominance of Australian central city areas by commercial offices and government buildings (1945-95), with the matching 'dead after dark' phenomenon of Australian CBDs, it is therefore not inconceivable to assume an expansive suburb – a suburban metropolis –not needing a central city as a core. In Australia, the suburbs distinctly challenge 'the city' in their capacity to manifest plurality and indeed democracy. But how do they accomplish this if they are a homogeneous and politically inert mass centred on houses, as their long-term critics have maintained?

1. Building Codes, Traffic and Zoning, etc.

Where Australia's central cities are increasingly artificial terraformations of economics and capital, suburbs are often pragmatism embodied in marginally smaller buildings and an easily graspable local connection, but without a conspicuous overriding programme. This measure of pragmatism meant suburbs had the capacity to switch between as much urbanism as they wished, or a little as they wished. This alternation is not easily measured in central city terms or morphology. The evolution of suburbs often moves in and out of the normative, procedural forces of the metropolis. Suburbs often rely on the most basic self-regulation¹, often imperceptible up close but which then assumes massive importance when seen in retrospect.

A range of Australian suburban forms spiral from the 1830s on through to the postmodern period. Over time an uncritical normalisation driven by consumerism and inept metropolitan development strategies have galvanised a virtually unrestrained multiplication of extremely low-density peri-urban forms. The 'investment' in putting distance between people and their services is substantial, and usually not quite matched by any physical or infrastructural ventures to connect them. But this embedded separatism is countered by other more collective currents in suburban form leading to cohesion, and the most important of these is Australian suburbs' tendency to form around particular and visible *nodes*. The first wave of these emerged when trams and commuter railways culture broke the walk-to-work scale of Australian cities, and the means of commuting, railways especially, pulled suburban retail and administrative precincts away from the main road arteries along which earlier suburbs had been aligned. This produced as generation of heavy-rail or tram-generated node-suburbs.

Architectural and urbanist *modernism*, as an arena for social or political change, has traditionally proceeded by tracking system perceptions and innovations in urban form. Like a teeming series of overlapping currents, these do not usually have a conscious historical dimension; but they make the city a largely open-ended composite of myriad forces and meetings. This constant nomination of intricate systems has an inbuilt periodicity: its industrial and assemblage modelling usually reflects functionalists' industrial paradigm and the idea that industrial culture could be harnessed in systems to radically transform and improve society. Concepts of Australian cities are therefore dominated by a simple binary of 'convergence' where CBDs are widely pictured as sitting in otherwise undifferentiated and often unexamined suburban oceans.

2. Conrad Hamann and Ian Nazareth, 'Urban Emulation and Australia's nodal cities', conference and published paper for *Living Cities 2018*, Melbourne, submitted 2017. Conrad Hamann and Ian Nazareth: 'Cities as Arenas of Social Change: Restatement and Emulation of Urban Form', for *Architecture and Collective Life: reading Cities Politically*, Architectural Humanities research Association, 16th Annual Conference, University of Dundee, 23 November 2019.

But Melbourne, and other Australian cities later, reflect a very different sourcing from the systemic, plausibly intricate yet essentially ahistorical *urban planning* model, and this casts light on similar aspects of cities overseas. These more distinctive, more local urban forms are connected to three Australian phases of wholesale urban transformation, which might be described collectively as *urban emulation*.² This paper takes Melbourne as a case study in this development of nodal suburbs, but its examples resemble those in all other large Australian cities.

Two Preceding Phases: Perimeter Urbanism (1788-1837) And Urban Emulation (1840 ff.)

The first is in the early colonialist eclipse of the traditional walled cities, still widespread in nineteenth century Europe (The Vienna Ring) and carried in the legacy of North American stockade cities, (New York, Detroit). From 1788 to c 1880 Australia replaced these with *charged boundaries*: streets at the perimeter of their original gridded town plans lined with major government and institutional buildings. Witness Macquarie Street in Sydney, Macquarie and Davey Streets in Hobart, St George's Terrace in Perth, North Terrace in Adelaide, Queen and William Streets in Brisbane, Spring and Flinders Streets in Melbourne. These were invariably paired with or faced water courses and stylised wilderness in large and adjacent domains and parkland areas. The courts, post offices and town halls often went deeper into the initial grids of these colonial towns, but everything else thought publicly significant was lined up along these perimeters.

3. Conrad Hamann and Ian Nazareth, 'Urban Emulation and Australia's Nodal Cities', *Living Cities Conference*, Melbourne, 2018.

In a second, overlapping phase, beginning c1840, Australian cities re-created the imagery and precinct-forms of previous centuries and realms in precincts of new buildings, an extension of nineteenth-century eclecticism. Collective visual images of other cities were extended to cover precincts, in collective action by grouped developers or contractors. In Melbourne this sees a conscious, sustained emulation: of Venice as the Renaissance (c1855-93), Haussmann's Paris (c1867-1925), and of Paris and London Theatre and entertainment precincts (1887-1920).³ Melbourne's more recent but still highly visual emulations include 1950s *corporate* New York (office towers and their enabling demolitions), British welfare-state slum clearance (public housing towers, 1956-72), Atlanta/Portman and mirror-glass models (1980-1992), London recovery urbanism ('Docklands' and 'Southbank' applications,

1993 ff.), a celebratory Hong Kong congestion imagery (Southbank, 2010-14), and most recently New York *above-it-all* imagery (pencil towers, 'Tribeca' and 'Upper West Side' sales pitches).

Nodal Suburbs, 1855 ff.

4. Hamann and Nazareth, 'Urban Emulation'.

Despite its official pursuit of planning *method*, Australian urbanism has become based in *collective, often impressionistic imagery*, of which Melbourne provides a leading example. The third phase of this comes between c1885 and 1918, when developing commuter suburbs begin to form *nodes* of regional importance, breaking from their mid nineteenth-century pattern of lining their retail and business precincts along radial road arteries leading to the central city. These break from arterial geometry and early strip shopping centres, by either utilizing the miniature CBD imagery of bunched street grids *off* main road arteries, often pulled clear of arterial roads by development round nearby railway stations, or in focusing retail and civic buildings on roads transverse to the central city rather than main arteries, again, largely pulled sideways by railway stations. In Melbourne, Sydney, and Adelaide, then Australia's three largest cities, this emerges slowly, between c 1855-60 and the 1920s. In these, the visual imagery of a CBD is harnessed *in miniature* to differentiate shopping and civic areas that would otherwise have continued at standard suburban scale. They gain greater density, and their streets and alleyways gain the scales and sense of crowding that become closer to those of central activities districts.⁴ Melbourne is a good starting point in tracing this development.



Artefact 1: The Centripetal City – the forces and elastic infrastructures that catalyse a constellation of settlement patterns, staged as a grand urban vision at the Town Hall. (Image Credit – Ian Nazareth, Rosemary Heyworth)

Centripetal Cities

An elaborate undifferentiated figure that evolved through a loosely controlled addition and reconciliation of programs, comprised of a constellation nodal points and centralities, a definitive trajectory directed and deflected away from the centre. The city as multiples, in a seemingly endless spatial field. A diagram of domains illustrates a centre, CBD or downtown, a vast suburb and hinterland, held within a weak force

of generic allotments and land carve-ups – a relentless substrate of detached houses and commuter suburbs. A now- decentralised fabric of a central city.

Traditional Perceptions of Australian Suburbs: Undifferentiated Sprawl

5. Robin Boyd, *Australia's Home: its Origins, Builders and Occupiers*, Melbourne University Press, 1952, 1961 edition, 3-4: 'each town was in essence a great sea of small houses around a commercial and industrial island'.

6. The principal architectural books published in Australia to 1960 were predominantly on suburban houses and, to a marked degree, suburban Australia as individual houses and their issues. Besides Boyd's *Australia's Home* came Walter Bunning's *Homes in the Sun*, Nisbet, Sydney, 1945, George Beiers' *Australian Houses*, Ure Smith, Sydney, 1948, and the prevailing magazine coverage in *The Women's Weekly* and *Home Beautiful*. Boyd's *Victorian Modern*, Melbourne, 1947, had surveyed institutional or non-domestic buildings, but there was not another sustained survey of non-domestic design- at least of contemporary work, till Jennifer Taylor's *Australian Architecture Since 1960*, Law Book, Sydney, 1985.

7. For Boyd's general framing of suburban discussions see Conrad and Chris Hamann, 'Anger and the new order: some aspects of Robin Boyd's career', *Transition, Discourse on architecture*, 2, 3-4, September-December 1981, pp. 26-35 Reprinted in *Transition* 38 with revisions (c.f. item 7 in this list), 1992, pp. 17 – 44.

8. In Boyd's account the suburbs' 'public' dimension really only meant public bars and cinemas. See his *Australia's Home* Ch. 18. They were arenas for Australian abasement and comportment hypocrisy. Other than that they were really only 'the bare neon tubes of the milk bar', or 'twisted streamers in the Oddfellows' hall' (p. 6).

9. Peter Sculthorpe, *Small Town*, originally part of his chamber music *The Fifth Continent*, Faber Music, 1963; released as an independent piece, 1977.

Architectural thought in Australia has sustained an article of faith: that its suburbs are characterised primarily by *sprawl*: largely undifferentiated, this sprawl is assumed to stretch from towering CBD precincts through to the outer perimeter of Australian cities.⁵ Its portrayal focusses on oceans of houses, with little real interest in what institutional or collective buildings –and life –suburbs might include. This probably derived from the economics of 1940s and 1950s architectural publishing: write on houses, central in post-war community need, and you sold books.⁶ But it led to problematic assumptions: Robin Boyd sought general images and worked constantly in generalisations: 'Australia is the small house', 'a million private rooms' 'the Australian housewife'.⁷ These all joined in and homogenizing a received image of Australian suburban living, as much for his own rhetorical use as anything else. Boyd made a convincing claim for suburbs remaining essentially the same *formally* from early settlement, –at the level of individual house designs and property sizes. This was his way of virtually denying suburbs any real internal dynamics or capacity to substantially change. For him suburbs became, literally, a spreading *lake* of problematic houses, mostly impeding a path to cultural and political maturity –a dominant narrative in Australia till c 1975. In Boyd's picture they did not *really* have shopping or civic centres, transport hubs, hospitals, schools, sports teams, local histories, or local oddity. But if individual house design improved, everything else followed.⁸

In this Boyd followed critical constructs of suburbs that gained currency round the world during the 1940s and 1950s. In Australian architectural circles suburbs went from being a staple to an inert expanse on which successive influences- bright baubles or popular styles continually caught Australians' collective eye but left everything largely undisturbed. Boyd's view of most suburbs resembles the *admass* characterisation Marshal McLuhan used describing areas of popular culture. Australia's suburbs or suburb-like surroundings- and the 24 million who live in them, were like the main street pictured in Peter Sculthorpe's musical piece *Small Town* (1976) and its clopping hooves: nothing much happening, nothing much there, punctuated only by two bugle calls (1914 and 1939).⁹ General Australian *vignettes* of suburbs (they were seldom more than vignettes) pivoted on collective political and social characteristics: 'conformity', uniformity, 'treeless', 'insular', 'stagnation', 'conservatism', consumerism, rituals and automaton behaviour. This had origins in early British critiques of *Metroland* developments northeast of London in the 1900s but sharpened markedly with American critiques (*The Lonely Crowd*, 1950, *The Organization Man*, 1956). Robin Boyd and others' Australian critiques are directly in this tradition, but Boyd and his Australian contemporaries were at pains to make such suburbs seem an only-in-Australia phenomenon. Australian travel overseas was limited in the 1950s, especially to the United States: what they did not know was certain to improve them.

10. Hugh Stretton, *Ideas for Australian Cities*, Private publication, Melbourne, 1970; Georgian House, Melbourne, 1971 ff. For Edmond and Corrigan's response to suburban circumstance in their architecture see esp., Richard Munday, 'Passion in the Suburbs', *Architecture Australia*, 66, 1, February-March 1977, pp. 52-61; Conrad Hamann, *Cities of Hope: Australian Architecture and design by Edmond and Corrigan, 1962-1992*, Oxford, Melbourne, 1993; *Cities of Hope Remembered*, Part 2, Thames and Hudson, Melbourne, 2012. A number of cultural commentators, notably Brigid Rooney, have examined suburbs in the Australian literary imagination, and she includes Boyd in her surveys. Brigid Rooney, 'the View from Above from Below', *Australian Humanities Review*, 29 November 2016, via PDF. See also her *Suburban Space, the Novel, and Australian Modernity*, Anthem, Melbourne, 2018.

11. There is an interesting study to be made on whether architectural Modernism was actually a major factor in *narrowing* Australian perspectives on architectural possibility by requiring gravitation to the perceived mainstream of its day (1940-1960), asserting an increasingly circumscribed Overseas Metropolis endowed with harmonies and simplicity it never had, and by increasingly restricting historical scrutiny to within a comparatively narrow range of external Modernist forms. See, for example, Conrad Hamann, 'The Misty Metropolis', *Fabrications*, 30, 2 (August 2020), 241-61.

The generalisations and stereotyping in all this are to a degree recognised, as with the 1970s studies of book reading and library usage in middle-range Australian suburbs, though in design circles they have yet to gain much extended public reappraisal outside of Hugh Stretton's *Ideas for Australian Cities* in 1970 and Edmond and Corrigan's architecture, 1974 ff.¹⁰ Architectural responses have been both highly *general*- Australia was evidently 'waking from the suburban dream' or facing mass societal improvement through highly *specific* Good Design: invariably projected through single houses or housing schemes. Victor Gruen and others were developing textbooks on shopping centre design, but that was kept right outside official ideology and culture in Australian architectural commentary. The most they allowed were the civic centre prescriptions for British New Towns.¹¹ In Australia's architectural history writing a consistent focus on houses and stylistic changes led commentators to overlook, effectively, a major overturning in Australian urban and suburban underpinning- a crisis and its decades-long aftermath- that is embedded in suburban development. Put simply, this was when most Australian city dwellers found they could no longer walk to work.

Nodal Suburbs Take Shape

Before about 1890 most working class and small middle-class housing was within ten to 25 minutes of work- by walking. Suburban amenities of that earlier period- mechanics institutes, corner pubs, corner shops, schools round the corner, neighbourhood shopping clusters, long shopping strips along the major road arteries, town halls on the major arteries toward the central city- were almost all in walking distance. But trams and the concerted development of commuter trains made both an opportunity and a solution to a growing problem: they freed workers to commute, often to distant employment. Commuting assisted Australia's early moves to planned zoning, so workers in noxious industries did not literally have to sleep in their own works yards. Walk-to-work suburbs persisted here and there in new company-town developments ameliorated by Garden City form, as in HV McKay's Sunshine (1906) or Cadbury's Claremont peninsula (1922); but the die was cast.

The switch to railway commuting had a major physical effect. It pulled suburban shopping strips away from the road arteries and toward railway alignments and stations determined by terrain. These were usually several hundred metres distant from the road arteries and main city-focussed streets - as with Glenferrie station away from the Burwood Highway in Hawthorn (1881), and a kilometre or more from the principal Melbourne-based road arteries in Moonee Ponds, Camberwell (1881) and Oakleigh (1877-9). Oakleigh developed as a small township around the station in a miniature of Melbourne's central grid. In this Oakleigh had two precursors linked to central Melbourne by railway: Footscray (1859) and Brighton (1859-61). Footscray had an earlier focus in an amphitheatre site on the Maribyrnong River, looking across river flats to central Melbourne. In a gloriously nineteenth-century decision its council gave it all up to noxious but lucrative chemical works and abattoirs and moved its core to the new railway station on Footscray Hill -700 m away from the Ballarat Road. Brighton was laid out as a small seaside town,

placing it two km from its arterial road, the present Nepean Highway. A fourth township in this mode, Box Hill, was 250 m south of Whitehorse road, its main road artery and, being a small town for some time, shaped its retail core in a grid rather like Oakleigh's. Caulfield's retail and teacher's college centre was pulled 300 m south from Dandenong Road, in a triangle-pattern of streets that broke from the standard grid nearby. These centres can all be seen now in their retail streets, which have remained surprisingly true to their nineteenth-century formations.

Several other suburbs, their foci pulled away by railway stations, used transverse roads, serving primarily themselves rather than the city. This meant Hawthorn-Glenferrie, 200 m from Burwood Road; Camberwell, 550 m from its main roads at Camberwell Junction; Yarraville, 700 m from the Williamstown Road; Fairfield, a similar distance from Heidelberg Road; Heidelberg itself, 550 m from Upper and a similar distance from Lower Heidelberg Road; Moonee Ponds, 550 m from its main roads at Moonee Ponds' road Junction; Coburg, 250 m from Sydney Road. A measure of how acute this tipping point was is seen in how much these centres reshaped themselves away from either their main roads or earlier main road shopping strips, when the new foci were often only c250 m away. As it turned out, Sunshine, though conceived as a walk-to-work suburb, utilised an existing railway and became one of these new centres as well, at least by the 1920s, focussed 1 km south of the Ballarat Road. The one real exception is Kew, sited on two converging Melbourne arteries, but for many years Kew also had a railway station.

Earlier, shopping, and municipal centres lined the major arteries leading to the city: High Street Northcote; Sydney Road, Brunswick; Bridge Road, Richmond; Burwood Road, Hawthorn; Brunswick and Smith Streets, Fitzroy. The central city was the crowning, encyclopaedic point in Colonial life. But the new railway-based suburban nodes all assumed another identity. Pulled away from the road arteries, they worked as both magnets and generators- centripetal and centrifugal- in form and in the gravitational and generative power they exerted on surrounding suburbs. The central city defined and determined nineteenth-century suburbs in large degree. But with Australia's new framework of perceptions in the 1890s and 1900s, Melbourne became 'just' another ex-colonial capital, and though it was also made the temporary Federal capital, the permanent destiny was soon projected for Canberra.

Nodal Suburbs at Their High Tide, 1900-1940

But a Federated Australia was now more congenial to a hundred local cities. In greater Melbourne almost all these emerging nodes developed three to five surrounding suburbs, reached from these nodes by walking, train, or tram. Box Hill, for example, gathered round it Mont Albert, Surrey Hills, Blackburn East, and North Box Hill; Oakleigh gathered Hughesdale, Murrumbeena, Chadstone (which formed its own node with a new shopping mall on Victor Gruen lines in 1960). Camberwell became the core for East Camberwell, Hawthorn East, Deepdene, and Canterbury. Malvern was the core for East Malvern, Armadale, Caulfield North, and sections of Glen Iris. By the 1920s, with electrification of suburban railways, towns and suburbs further out took on similar roles and gathered suburbs in similar clusters, forming, in turn, a series of inter-

12. Suburban railways in Melbourne were electrified, and usually duplicated, to include these contemporary or eventual nodes: Moonee Ponds/Essendon, Brighton and Hampton in 1919, Coburg, Footscray, Yarraville and Williamstown, 1920; Reservoir, Sunshine, Heidelberg/Ivanhoe, Eltham, 1921; Oakleigh, Springvale, Dandenong, Frankston, Hawthorn, Camberwell, Box Hill- Ringwood 1922-3; Glen Waverley 1930. Useful sources for dating railway connections are Robert Lee, *The Railways of Victoria 1854-2004*, Melbourne University press, 2004, the VICSIG website, and the Victorian Railways' 1928 *Grades and Curves Manual*, via VICSIG. The high tide of the railway-based nodes dates from this period.

war suburban nodes. Dandenong, Moorabbin, Frankston, Hampton, Ringwood, Reservoir, Springvale all became nodes between c1920 and c1965.¹² Three of these, Frankston, Dandenong and Reservoir, all older country townships, were sited in main arterial roads as well as on railway lines. But Reservoir spread right out to each side away from its arteries, after 1945 especially, and Frankston and Dandenong both filled out grids, as Oakleigh and Box Hill had done. All three were in those years terminus stations for their electric railway lines. Like Reservoir, Eltham was right on a main artery toward central Melbourne, but it was self-contained with a particular bohemian and socially progressive community cohesion, and again grew tributary suburbs and areas: Diamond Creek, Lower Plenty, Montmorency, Research- like the other nodes. Till the 1950s all four of these nodes were termini for their electric railway lines. With property or terrain constraints, two nodes developed twin centres: Heidelberg developed a large shopping centre and municipal headquarters at Ivanhoe, 2.5 km down the railway track, on both the Upper Heidelberg Road artery and two major streets running sideways off it. Caulfield had a similarly sized shopping centre at Carnegie, a kilometre by train to its south-east.



Artefact 2: The Centrifugal Suburb - Novelty, variety and compression – a dense sprinkling of amenity localised in the archetypal highstreets. (Image Credit – Authors, Ian Nazareth, Rosemary Heyworth)

Centrifugal Suburbs

A centre for a centre, a focus of nodes. These patterns are articulated by an archetypal, representative urban form underpinned by an encyclopaedic urbanism. The high street as a civic condenser – a collage of typologies and topologies. A blip in the continuum. Movements are largely inscribed within this nodal fabric, differentiated, and exaggerated. A catalogue and index of programs where the excesses and inefficiencies of planning, not its shortcomings are laid bare, and positively enjoyed. A distributed network of cities in miniature.

The primary cultural sense of the nodes is in loyalty and identification. Footscray and Sunshine gained and held identity as working-class and industrial regions. Box Hill was always *Bokky* during the 1960s with its athletics and its cluster of schools. Camberwell, which sought to style

13. The Temple Beth Israel building in Prospect Hill Road, left incomplete between 1964 and 1968. This was surprising as liberal congregations had held services in the area for ten years previously. Two other liberal centres were established in Kew, and the Camberwell building was later demolished. <https://tbc.org.au>, viewed 23 October 2021: 'History of the Leo Baeck Centre'.

itself as a Garden City in the 1920s, was famously not-in-my-backyard and even managed to close a near-completed Synagogue.¹³ Hawthorn was marginally more relaxed but gained what was ultimately a national league football team and for several decades the suburb resounded to crowd roars from Glenferrie football ground, effectively integral with its main shopping strip, and its central streets would fill with chaotic car parking. Footscray, along with Brighton the oldest Melbourne node, has the one national league football team that still has its original suburban base; the rest have since been made national corporations and few play in their named suburbs.

Nodal suburbs challenged people's idea of where the central Melbourne actually was. As with other Australian CBDs, it had become a complex of office blocks with relatively few residents, much of it dead after dark and at weekends. Monash University students, in the early 1970s at any rate, widely saw The City as not Melbourne CBD, but as Oakleigh, the nearest interwar node, or the new car-fed node of Chadstone shopping mall. Apart from Chadstone, Monash University's buses travelled almost entirely to train-generated suburban nodes: Oakleigh, Bentleigh, Brighton, Box Hill, Dandenong. In turn, students at Monash's outer-suburban Berwick campus around 2000 saw Dandenong, for religious and shopping reasons, as their city centre: the perception was renewed.

There were two broad consequences, one physical, the other cultural. Suburban development did not just spread outwards in an even wave, like water on a flat surface, as the 'sprawl' idea would have it. These nodes were growing points and their tributary or associate suburbs spread around each *radially*. It was only when the tributary suburbs touched boundaries that a continuous suburban fabric emerged. Melbourne's fabled sprawl, portrayed as without order for polemical purposes, was in fact scaled and nuanced to its nodes. This explains the long-lasting anomaly of its lopsided east and west development: there were more nodes on the east than on the north side, and only inflated house prices of recent years have worked to redress the balance.

14. Graeme Davison speaks of their Bible belt character in his 'Suburbs and Suburbanisation', in Andrew Brown-May and Shurlee Swain (eds., contrib.). *The Encyclopedia of Melbourne*, Cambridge, Melbourne, 2005, pp. 692-6. Outside of Camberwell and Box Hill, the only statutory authorities to enact outright liquor prohibition in the 1920s were Finland and the United States.

Each node had distinct local services. There was the optics of political scrutiny in MP's offices, the economics of health services, the reach of the law courts, the new municipal libraries, the swimming pools, the state high and technical schools (for many years, one of each per node), for years the major churches, the regional Catholic Secondary Schools, the fire stations, the halls of the Returned Services' League. The nodes were also epicentres of high and popular culture. Most to all of them had municipal public libraries, designated football and cricket teams, two or more usually three cinemas in their core precincts, the local newspaper, suburban Anzac Day marches (at least till they waned in the 1960s) and prominent war memorials. Camberwell and Box Hill initiated Australia's only 1920s prohibition- on local pubs – and in turn saw that become part of their distinctive Bible Belt identity.¹⁴ In another way, Springvale prides itself on its extraordinary religious diversity: over sixty religious groups and their buildings in the one municipality. These groups came, in large measure, because Springvale, a former country town on the Gippsland railway line, had already emerged as a node in the 1950s- at least a 'railway' node on interwar lines, almost 2 km south of the nearest highway to Melbourne.

Nodal suburbs often had talismans: the Junction's neon airline signage at Moonee Ponds; the Whitehorse emblem at Box Hill, reminder of a pub closed by local prohibition in the 1920s; the green neon clock at Heidelberg Town Hall, beckoning the faithful to weekly dances. The nodes often had a prominent manufacturing dimension, with more icons and networks of company (or union) loyalty: Williamstown's shipyards, Sunshine's Harvester, Dandenong's Holden, Heinz and International Harvester, Footscray's Kinnear Rope Works and the Angliss and Michaelis meatworks, Box Hill's Holeproof hosiery and Bowater Scott paper. Ringwood's post-war rise to node level saw its artery road overwhelmed by its Car City roadtown of automotive yards and accessory shops; almost alone among the later nodes, Ringwood had a main road artery and railway junction side by side. Beauty, history, and often visual clamour all became part of these nodes' identity and workplace history. Brighton, Glenferrie, Footscray: all gathered in large technical Colleges. As Melbourne's many large-house private hospitals coalesced toward the mid-twentieth century, their new buildings went straight to the developed nodes: Caulfield (1916); Frankston (1941); Dandenong (1942); Sunshine (1946); Footscray (1947-53), Box Hill (1949-56). Heidelberg was effectively a hospital node: it gained both the Austin and the Repatriation Hospitals (1882, 1941).

15. Favourites of Camberwell, Box Hill, Nunawading and other Melbourne city councils from c 1945 through to around 1980.

These hospitals and factories brought even more people and amenities into the nodes, so their status became more prominent still. Almost all were municipal centres, with town halls and council offices, invariably splendid in Melbourne's nineteenth-century tradition. The later ones- Box Hill 1935, Footscray 1936, Heidelberg 1938, Moorabbin 1963, were all monumental designs, though two- Oakleigh and Sunshine, opted to blend in with their local streetscapes. Most managed a prominent park or garden, usually to augment their municipal buildings: Camberwell, Kew, Sunshine, Box Hill, Ringwood, Footscray had Botanical gardens in the nineteenth century manner and another park around its town hall. If they did not have gardens, the next best thing was local council favourites: melaleucas on the street verges and serried football ovals for parks.¹⁵

At all levels, therefore, the nodal system upended the prevailing urbanism and suburban development of Melbourne's Victorian period. Many new buildings were now predicated on the nodal status of their given suburb. Even when regional assets, such as swimming pools, were not in the actual node but in a tributary suburb, they still reflected the majesty and beneficence of the node: Box Hill's pool was built 1.5 km from Box Hill centre; Malvern's, now the Harold Holt centre, the same distance.; Kew was 1 km from its node, once a glorious affair with gal iron sheds and broken glass topping its red brick walling.

Links to the Federation Perspective

All of this restates, constantly, the general characteristics of Melbourne's suburban nodes: their conjunction with railed commuting- especially train commuting and its alternative to the pattern of nineteenth century road arteries to the central city. With that came a major challenge to the centrality of Marvellous Melbourne of the 1880s: a rejection of Melbourne as the supreme embodiment of Victoria the Colony, as much

as the increased ruralism Graeme Davidson argued in 1978. National sentiment, oddly, overrode the splendours sought by colonial cities in favour of the nodes and their suburban clusters, which were more clearly subordinate to national cohesions and ambition. Australian Federation in 1901 comes at just the moment the wave of nodes- from their early precursors, was starting to coalesce and grow characteristic in Melbourne suburbs.

Not just Melbourne: Sydney, Perth, Adelaide, even Hobart, gain nodal elements. Brisbane, with a long-unified city administration, is the one city where this sense is less developed. Canberra's New Town influences in its satellite cities end up looking and feeling suspiciously like older Australian nodal suburbs. And as with national sentiment in architecture Australia was hardly alone. From c1900 nodal suburbs mark Californian cities, Los Angeles especially, and their examples and imagery have in turn fed parts of nodal suburb development in Melbourne.

Later Challenges to the Rail-Generated Nodal Suburbs

16. Victor Gruen, Larry Smith, *Shopping Towns USA: The Planning of Shopping Centers*, Reinhold, New York, 1960. Chadstone was completed six years after Gruen's first mall, Northland-Detroit (1954). The first generation were closer and in appearance to Melbourne's railway nodes, having semi-open streets, several closely positioned buildings for both smaller shops, the supermarkets and the major retail chains. The walkways usually had palms and similar foliage, and a polygonal gazebo for radio stations to do visiting broadcasts. The car parks circled them, much as they do now, which isolated the malls from surrounding housing and existing suburban fabric.

Almost all these nodes were connected with suburban railways, but their pattern has been resilient enough to ride out the post-World War II eclipse of suburban railways by the car and the corporate shopping malls on Victor Gruen's pattern.¹⁶ The new-build malls were suburban nodes by design and function but in chain-store retail, integrated entertainment venues and most of all their car and bus reliance they challenged Melbourne's earlier nodes. Chadstone took on Oakleigh, Doncaster took on Box Hill. Southland took on Moorabbin. But the nodes had established municipal power and municipal booster ideology, and all manner of community linkages to go with that- especially real estate headquarters and parliamentary offices, and their own councils. The new malls' determined car basis actively limited their engagement with commuter culture. Of Melbourne's largest suburban shopping malls in their first wave, Chadstone (1960), Northland (1966), Eastland (1966-7), Southland (1968), Doncaster (1969) and Highpoint West (1975) and Knox (1977), only one, Eastland, was remotely near a railway station. Southland was near a railway line but placed neatly halfway between two quite distant stations, and Highpoint has a tram. All the others were as far from rail, and hence mass transport, as they could possibly get. A generally token access to buses, and their barely visible stops (Bus Bahns were an Adelaide idea), virtually announced malls as a new celebration of car-borne individualism, and to a degree this shaped a new nodal development that challenged the older 1900s-based system. Melbourne's two new universities of the 1960s, Monash and La Trobe, were similarly instant suburban nodes, and similarly distanced from any mass transit, rail or tram. They shared much shopping mall typology, with partly sheltered street-width pavements flanking their central union buildings, surrounded by similarly vast car parks, filled, in their foundation days, with suitably Oxbridge Morris Minors, Austin A 40s and Standard 8s. In the end though, all these automotive malls never eclipsed the 1900s-1940s nodes. They have no fallback on institutional buildings and roles when online shopping or rack-renting curtails their retail. The shopping malls' disc-jockey gazebos fell into disuse and cinemas are the only other trophy they captured from Melbourne's earlier nodes.

Conclusion

So, what marks out Melbourne's suburban nodes architecturally? Why have they been resilient enough to have wrought the largest change in Australian urban form outside of high-rise and freeways? Arguably, it is because the nodes took on the imagery of central cities themselves. They certainly saw themselves that way legally: most Melbourne nodes bear, or bore pre-amalgamation, the official title *City of-*. Their individual buildings certainly try hard: the town halls are monumental; the hospitals increasingly bulky, the banks as sculpted and a presence as much as their early twentieth century architecture will allow; their churches and religious buildings are all-stops out at a local level and some (Hawthorn, Preston or Oakleigh Catholic, for example), have enough monumentality to match CBD equivalents. The nodes that were developed as country towns - Dandenong and Frankston especially, have marginally more presence in individual buildings as their fairly large pre-suburban population and service needs warranted a greater per capita effort. But it is in the density, the array in which these buildings come together, that usually makes the nodes rather than how they work individually. Their boundaries and perimeters, how they meet their parkland, how they link with their railway stations, sometimes how they marshal their churches and religious buildings- these all give Melbourne nodal suburbs their presence and force.

17. Canberra Civic's major shopping mall precinct and its post office, essentially an enlarged suburban business building, command much more urban presence than its careful piazzas and its British New Town court and administrative buildings designed by Yuncken Freeman in the late 1950s.

Oddly, the railway stations, later buried in cuttings as at Camberwell or Moorabbin, or set under shopping malls and car parks, as at Box Hill, are now often the least conspicuous part of suburban nodes, despite their role in the nodes' creation. Of contrasting prominence are the functions the nodal suburbs perform independently of the malls: the law and social service offices, the doctors' suites, the commercial offices, the real estate agents' head offices, the warehouses serving the nodes' retail, the upstairs extensions of retail, the increasing identification of nodes with large ethnic groups. These all need restaurants, food courts and service industry, and while the pandemic office closures in central Melbourne have torn their CBD counterparts to shreds, it has been noted that outside complete lockdowns nodal suburbs are often doing well. New buildings and construction are still a strong presence in the older suburban nodes, in and out of Covid. They are often tilt-slabs of the just-add-water variety, but as in Canberra Civic, their bulk often adds as much urban weight as more consciously urbanist designs.¹⁷ Alongside those, nodes have become a new focus for apartment and office towers, inadvertently increasing nodal bustle by introducing hundreds of on-site cars. Glen Waverley, a newer node, crowns its long ridge with a startling array of bulky buildings on a car-park podium, like a citadel. Box Hill, now gaining the presence that its Chatswood or Bondi Junction counterparts have in Sydney, had specified nine or ten apartment and office towers to ring its old grid like sentinels. So what is the imagery accompanying reports of buoyant suburbs? In Melbourne, invariably, it is still *nodal suburbs* and their shopping centres.

While the research unpacks critical elevational changes in the history of Melbourne's growth, it is important to consider the projective manifestation of these developments. In particular, the COVID-19 pandemic introduced a limited scope for mobility and movement to and from the CBD, and extended lockdowns inscribed residents within

a 5-10km radius of their homes. The direct implication of this has been the re-orientation and reiteration of centralities and the distributed city – a finer grain and resolution of development that intensifies the decentralised model. Once again, we observe a restatement of the foundational hierarchies and morphologies of Melbourne's nodal development.